User Manual

KANMED® BABYBED

CE

Art no: BB100-070 ver 1.0
2014-05-20

Caution
Please read this manual carefully.
Incorrect use may cause patient
or user injury.

Manufactured by:
KANMED AB
www.kanmed.se

Distributed by:

This manual is valid for all Kanmed BabyBeds with art no beginning with BB1xx

Contents

1 GENERAL DESCRIPTION / INTENDED USE 3
2 WARNINGS 3
3 DESCRIPTION OF SYMBOLS 4
4 GENERAL INSTRUCTIONS FOR USE 5
5 CLEANING 8
6 REGULAR SAFETY CHECKS BEFORE USE 10
7 TROUBLE SHOOTING 10
8 TECHNICAL DATA 11
9 TECHNICAL SECTION - SERVICE AND MAINTENANCE 12
10 SPARE PARTS/ACCESSORIES 14
11 WARRANTY STATEMENT 14
12 EMC GUIDE-LINES 15
13 DISPOSAL 15

BB400

BB100

1 General Description / Intended Use

General description
The Kanmed BabyBed is available in 4 versions:

BB100	Standard model with electrical height adjustment
BB300	Same as above but without electrical height adjustment (Fixed height)
BB400	Version for Twins with electrical height adjustment
BB400F	Same as above but without electrical height adjustment (Fixed height)

Intended Use
The intended use of the Kanmed BabyBed is to provide an ideal ergonomic and safe Bed for premature and new born babies in a hospital environment. It is also intended to be used with the Kanmed BabyWarmer systems BW3 or BW-50.

It is intended to be used by hospital personnel or the baby's caretaker according to the instructions given in this manual and according to your established clinical routines. Only persons that have been instructed in the use of the Kanmed BabyBed shall be allowed to use the product.

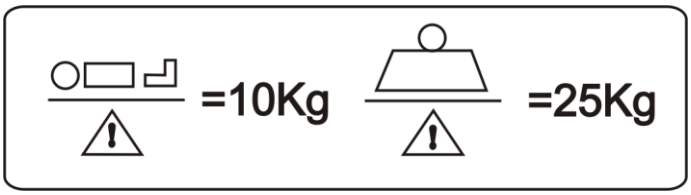
2 Warnings

- Do not use the Kanmed BabyBed with babies/small children that are able to move so that they might fall/climb out of the Bed.
- Do not move the Bed around in the high position. Always use the lowest position.
- Do not use the Side Walls to move the Bed – always use the Side Rails.
- Do not leave a baby unattended with the Side Walls down.
- Respect the weight limits.
- Do not place electronic equipment on the shelf under the Bed.
- Check that the Bed is not wobbly meaning that all wheels and bolts are tightened.
- Ensure that there are no people or objects in the way when changing height.
- Remove the Tent Pole if the Bed is used without a tent.
- The Tent Pole is only to be used for a tent.
- If children, relatives or patients, or patients with special needs are at risk of pressing / playing with the Foot Pedal, then disconnect the power. Make sure that the Kanmed BabyWarmer still has power.
- Keep safe distance to other products that can move up or down.
- Max mattress thickness is 40mm
- Only persons that have been instructed in the use of the Kanmed BabyBed shall be allowed to use the product.

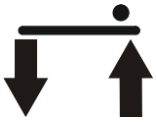
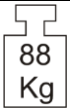
3 Description of Symbols

	Read the user manual before use.
Gas **S**pring **S**ide **W**all	Nouns that begin with a capital letter usually refer to a Kanmed product
BB100 BB400 BB300 BB400F	Standard BabyBed BabyBed for Twins BabyBed with Fixed Height BabyBed with Fixed Height for Twins

Maximum safe working loads permitted:



Bed Tray, for all versions: Baby(ies) weight 10 kg total + Water Mattress(es) Gel Mattresses or other mattresses, total 10kg
Storage Box Lid under Bed Platform: 2kg
Storage Box under the Bed Platform: 2kg
Side Rails around the Bed: Max 3,5 kg on each Rail. Max totally 10 kg on all Rails together

	Symbol on Foot Pedal for raising and lowering the Bed Platform (not for BB300 and BB400T)
	Symbol for tilt function, found on the Bed Tray Label
CE	Fulfils MDD 93/42 EEC
	Earth potential equalization connection point.
IP 30	Degree of protection (against ingress of water and foreign objects)
	Protection grade Type B (Body) (not for BB300 / BB400F
	When the BabyBed reached end of life, it should be returned to the distributor for recycling in accordance with the EU 2002/96/EC (WEEE) directive if applicable.
	Year of manufacture. Maximum minutes nonstop use of the electrical Pillar
	Total weight of bed when loaded with max permitted weights
	Risk of hand injury

4 General Instructions for Use

4.1 First cleaning

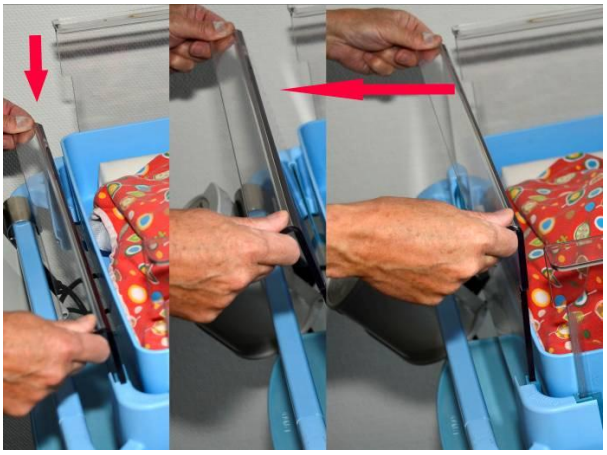
The Kanmed BabyBed and accessories are factory clean but must be cleaned according to your hospital routines.
Please refer to section **Cleaning** before use with a patient.

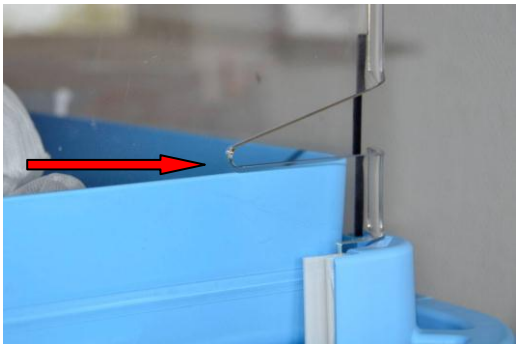
4.2 Check stability

Make sure that all bolts and screws are properly tightened and that the Bed feels stable.

4.3 Lowering the Side Walls

The Side Walls and the Front Wall are lowered in the following way.
Use *both* hands and take hold of the upper edges.
Pull gently towards you (about 2cm/one inch) and press down.
Use both hands to pull the Side Walls up again and they will click in place.
Ensure that all Side Walls are moving correctly and in good condition.
NOTE: The groves on the rear Side Wall are intended for fixation of tubes.
NOTE: Check that nothing gets trapped when you lower and raise the Side Walls.
NOTE: Removing the Side Walls – see section **Cleaning**





4.4 Moving the Bed around

Always use the Side Rails for moving the Bed
Warning: Use a low Bed height when moving or transporting, especially with a baby inside
NOTE:

- Do not use the Side Walls for moving the Bed.
- Do not forget to unplug any cables before moving
- Use Wheel Brakes when Bed is not to be moved

4.5 Connecting the BabyBed to the mains (not for BB300 and BB400F)

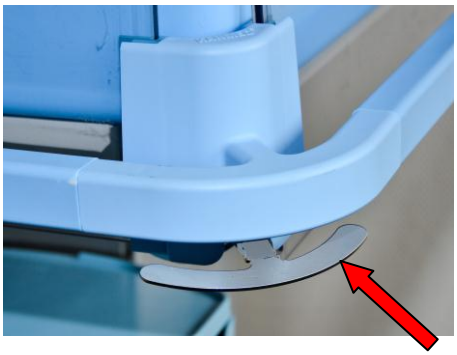
The BabyBed must be connected to an earthed power outlet using a grounded cable.
Route the cable so that no one can get caught or fall because of it.
NOTE: The only way to break the power is to either disconnect the cable at the Pillar base or at the wall socket.
Place the Bed so that the cable can easily be disconnected.
WARNING: To avoid the risk of electrical shock, this equipment must only be connected to a mains supply with protective earth.

4.6 Adjusting height (not for BB300)

The height is adjustable by pressing the Foot Pedal at the wheel base.
Connect power and run the Bed up and down and ensure that it moves smoothly without any unusual noise.
The motor can be heard which is an indication/warning that the Bed Platform is now moving.

WARNING:
When changing height, make sure that no person, cable or other items prevents the movement and that no cable is jammed or wrapped between the Pillar and the Wheelbase or somewhere else. *Think twice and press one time !*
If children, relatives or patients are at risk of playing with the foot pedal, then disconnect the power. Make sure that the Kanmed BabyWarmer still has power.
Do not block the movements when activating the electrical height adjustment.

4.7 Tilting



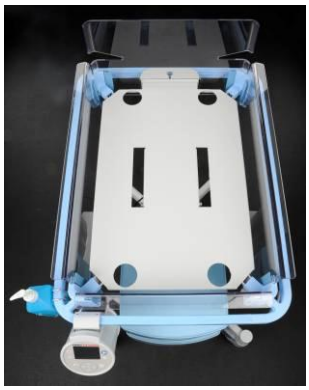
When tilting the Bed, hold the front Corners firmly by both hands and press the release handle under the right Corner upwards.
At the same time, press the Bed down or up till the desired tilt is achieved. Release the grip.
Max tilt angle can be limited by a technician. See technical section.

4.8 Tent Pole, Tent and Mattress

Mount the Tent Pole in the rear bracket.
Turn it to a 90 degree angle from the Bed and press it down so the screws can pass in the groves.
The Tent has a channel inside.
Thread the Tent Pole into the channel in order to secure it and place the Tent sides on the outside of the Side Walls.
Place the Mattress in the Bed.
Other mattress types and home made tents may void Kanmed legal responsibility.

4.9 Baby Tray

The Baby Tray may be fixed to the Bed Platform or be loose, depending on your order.
Having the Bed Tray loose allows you to lift it out for easy cleaning and for cleaning of the Bed Platform as well.
In case you want the Baby Tray permanently fixed to the Bed Platform Kanmed can supply a special tape for this purpose.



4.10 Storage Boxes

Storage Boxes with or without lid can be mounted under the Bed Platform.
They can be swung around for easy access.
Swing them back in after use.
Respect the load limits written on the Lid and in the Storage Boxes

4.11 Kanmed BabyWarmer

The Kanmed BabyWarmer Control Unit is hung on the Side Rails. A special handle can replace the existing handle and will reduce the risk of the unit accidentally falling of the rail.
See www.kanmed.se or contact your distributor.
The Heating Pad cable is preferably thread through one of the holes in the Bed Tray and connected to the Control Unit.
The Kanmed BabyWarmer is connected to mains power by its own cable or by a special Short Cable (Order Number 800-0502) connected at the upper base at the Pillar – se picture- See Kanmed BabyWarmer user manual for further information about the use of the Kanmed BabyWarmer.

4.12 Other accessories

Kanmed accessories are mounted and used according to the instruction that comes with the parts.
Respect weight limits indicated in Section 3
Adding other accessories needs careful consideration regarding weight limits, suitability, attaching to the Bed, etc.
Kanmed can only be held responsible for accessories delivered by Kanmed.
For Kanmed accessories see www.kanmed.se or contact your distributor.

5 Cleaning

General information
The Bed and accessories should be carefully cleaned between each patient, as a minimum.
Follow the routines set forth by the person (hygienist) responsible for cleaning and disinfection in your hospital and department.
Inspect all parts for wear and strength before and after cleaning.
Below is a list of cleaning and disinfection agents recommended by Kanmed. Using other agents and/or exaggerated cleaning may reduce the lifetime of some or all parts. Contact Kanmed with the product specification if in doubt.
The Side Walls are made of PET (eco-friendly) and will withstand all kind of cleaning and disinfection fluids.
Do not use bleach and solvents.

Cleaning: Use soap water

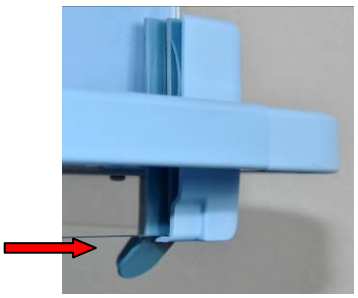
Disinfection: The Kanmed BabyBed withstands most common surface disinfectants used in hospitals. Disinfectant wipes with Virkon®, Diversey Limpiador Clorado, Clinell wipes, Chlor Clean wipes, Meliseptol® rapid, Dax yt, Terralin®,Dsimozon® pur , perform® and similar.
If in doubt try on a small surface or contact your distributor or Kanmed.

SPECIFIC INFORMATION

5.1 Cleaning of the Bed
Use well wrung out cloths.
NOTE: Kanmed BabyBed must under no circumstances be showered with any fluid.
Do not clean it in disinfecting chambers.

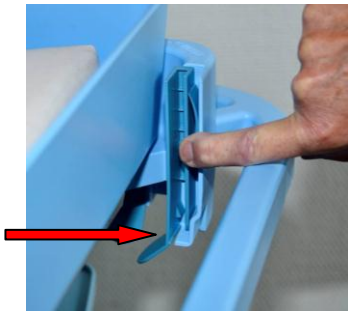
5.2 The Baby Tray
The Baby Tray is normally loose. It can therefore be lifted out for easy cleaning and for cleaning of the Bed Platform as well.

5.3 Cleaning Side Walls
Removing Side Walls
Press the flap inwards, see arrow,
and lift up the Side Wall a few cm.
Repeat at the other end and lift the Side Wall up.
Do not wash the Side Walls in a dishwasher.
Don't scrub the Side Walls with a scratchy material.



5.4 Cleaning Side Wall Guides.
The Side Wall Guides can easily be removed and cleaned.
Add a bit of Vaseline in the track so that the Side Walls slide well.

5.5 Putting Side Walls back in place.
Insert the Guides in the corners
with *the flap pointing inwards*. Very important !
Press the pin on the guide firmly into the hole in the corner.
Insert the Side Wall in the groves, see arrow,
and slide them down.
They will automatically slide / click in place.
If the Side Walls are not sliding easily you may add
very little grease at the Side Wall edges.



NOTE: If you have inserted the Side Wall Guides wrongly (flap pointing outwards) then the Side Walls can get stuck completely in the upper position. You will then need a technician to remove one Side Corner (2 screws) in order to refit them correctly.

5.6 Storage Boxes and Lids
The Storage Boxes and Lids are cleaned and disinfected same way as the rest of the Bed.

5.7 Mattress
Use a surface cleaning and disinfecting agents recommended by Kanmed above.

5.8 Tent
See label for washing instructions.
In case of contamination the Tent may be washed at 90°C but this may result in shrinking and an earlier wear out.

6 Regular safety checks before use

General
Ensure that all parts are in good condition and do not show discoloring or cracks. Change parts that are not in good condition.
Additional annual maintenance is required. See technical section

Recommended controls before use	Executed by	Time schedule	Additional information
Function of Side Walls	User	Before every use	Make sure that they move up and down easily and that they lock in the upper position.
Tilting	User	Before every use	Make sure it moves freely and lock secure in any angle desired.
Cables and connectors	User	Every day	Make sure that they are in good condition.
Stability and integrity	User	Every day	Ensure that the Bed is in good condition and stable and that all functions works correctly
Kanmed BabyWarmer	User		See Kanmed BabyWarmer user manual

7 Trouble shooting

Symptom	Possible cause	Action
The lifting column does not move as wanted. (not for BB300 and BB400F)	No mains	Check the cables. Check power outlet
	Something obstructing the movement	Check that nothing blocks
	Electrical connection broken or not properly connected	Technical service
	Foot Pedal faulty or cable not connected	Technical Service
You cannot tilt the Bed properly. It gets stuck in utmost positions. It does not keep the position	Control is out of order or needs adjustment	Technical service
	Something is obstructing it	Check that nothing blocks it
Bed feels unstable	Loose screws or wheels	Technical service
Height adjustments makes unusual noises		Technical service
Side Walls are hard to move.	Not fitted correctly	Check for correct fitting Add grease
Side Walls are stuck	Guides turned the wrong way around	See section 5.5

8 Technical data

	BB100 Standard **BB300 Fixed height**	**BB400 Twin** **BB400F Fixed height Twin**
Outer dimensions	L850mm W630mm	L950mm W800mm
Bed Tray Inner dimensions	L690mm W465mm H90 mm Made of PP	L765mm W640mm H90mm Made of PP
Height from floor of Bed Tray bottom	Min 78 cm Max 108 cm Fixed height is 80cm	
Weight	About 46 kg Fixed height about 36 kg	About 52kg Fixed height about 42 kg
Wheel base	64 cm X 87 cm	
Wheels	Diameter 125mm with brakes.	
Tilt	About 17 degree	About 17 degree
Mattress	Soft foam coated	Soft foam coated
Tent	Washable 60°C (90°C)	Washable 60°C (90°C)
Storage Box	L320mm W330mm H120mm, Lid 320x330mm	
Colors	Unisex light blue for all plastic details. Wheels and metal parts light grey	
Voltage BB100/400	230V 50Hz / 60Hz or 115V 60Hz	
Power BB100/400	???	
Fuses BB100/400	2xT6,3A 230V, Only replace with same type and rating	
Power outlet on Pillar BB100 and BB400: Max 300W		
Protection BB100/400: Class I		

Modifications WARNING	Any modifications on Kanmed BabyBed including home made accessories may void Kanmed's responsibilities totally and are not allowed without written approval of Kanmed.
Creating Systems	Any person connecting the Kanmed BabyBed to any other systems mains socket may have created a "system" according to IEC 60601-1 section 16, and must be qualified to evaluate any consequences that may harm staff, patient and equipment.
Expected Lifetime	Kanmed warrants a safe lifetime of 10 years from first day of use. This is under the condition that the Kanmed BabyBed has been serviced according to the user and or service manual and that the unit has not been modified or changed in any way or for any reason.

Products is CE-marked.
Conforms to UL 60601-1

Environmental data
In use: +10 to + 40ºC, <85% RH
Transport: -20 to +60ºC, non condensing.
Storage: +10 to +40ºC, non condensing.
Atmospheric pressure: 70 to 106 kPa

9 Technical Section - Service and Maintenance

NOTE: All spare parts used for replacement or repairs shall be supplied by Kanmed or its authorized distributor. The use of "non Kanmed permitted parts" will automatically reassign all safety responsibilities to the hospital. Only qualified personnel, biomed engineer or equivalent, shall attempt repairs. Do not attempt any service with a patient in the bed.

9.1 Annual checks / maintenance

Check the following at least once a year:

- That cables and connectors free of defects.
- Check the Side Walls for cracks or damages.
- Check the Corners – no cracks in the plastic, screws tightened? Note, special plastic screws.
- Check the Side Wall Guides
- Check that the Side Walls lower and raise without problems and is easily lifted away.
- Check that the Foot Pedal for Pillar height control responds without delay, that the raising and lowering function is working correctly and that it makes no unusual noise when operated and that its cable is undamaged.
- Check that the tilt function works correctly. It should not make any noises.
- Check that the wire to the Gas Spring and tilt handle is undamaged.
- Check that the wheels are tightened to the stand and not damaged in any way, that they roll without noise, and that the wheel locking function works properly.
- Check that all screws are properly tightened, especially the screws connecting the height adjusting Pillar to the wheel base, the screws on top of the Pillar, the screws holding the Bed Platform and Gas Spring.
- Check that Foot Pedal Label is not worn
- Check that the Bed Tray Labels are not worn.

Service

NOTE
Always unplug the power before performing repairs on the BabyBed.
Always perform a complete function test after repairs.

9.2 Adjusting the release of the tilt function / Gas Spring

By moving the release handle on the right front side you press down the release pin at the top of the Gas Spring via the wire arrangement. The wire tension is either too loose or too tight if the Bed cannot be tilted or be tilted without touching the release handle. Adjust the release of the Gas Spring by turning the adjustment screw on the wire (under the release handle). When not activated the Gas Spring should be impossible to move.
If it still cannot be tilted or be tilted without touching the release handle then the Gas Spring release pin must be adjusted. Extend the Gas Spring by setting the Bed to max tilt if possible. Release the locking nut on the Gas Spring. Release the Gas Spring from the Pillar. Press the release handle. If the Gas Spring do not move then release the handle and turn the Gas Spring clockwise until it starts to move. Quickly make a full anti clockwise turn to stop the movement. Now the wire arrangement should release the spring normally. If it moves without touching the release the turn it anti clockwise until it stops moving by itself.

9.2.1 Adjusting the tilt limit.

The tilt limit can be limited by moving down the Gas Spring holder bracket on the Pillar. Make sure to tighten it properly.

9.3 Changing or adjusting a Side Rail or Corner

See spare part list for part numbers. The Side Rail Corners are screwed from the underside with two (2) special plastic screws at each Corner. The holes in the Bed are oval allowing a tight adjustment of the Side Rails. It is advisable to remove the screws at 2 Corners to fit new Corners or Side Rails.
Do not use any other screws than Kanmed part no xxxx because they will not have enough holding power. A screw can be screwed in and out about 6 times in the same plastic hole.

9.4 Adding, removing or adjusting Storage Boxes

Loosen the screws to the Storage Box Holder. Move it to the new position and tighten the screws properly.
To remove or add an extra Box Holder: Raise the Pillar more that 5 cm. Press down the black plastic frame that goes around the bottom of the Pillar. Now you can remove the bolt pins or add bolt pins.
When adding Storage Boxes ensure that the Front Side Wall can be lowered sufficiently.
NOTE: The aluminum pin must be inserted through the box before bolting it to the bracket.

9.5 Changing the Foot Pedal / electrical connections

Lay the Bed carefully on its side. Unplug the pedal from the Pillar. Unscrew the Foot Pedal and replace it. Raise the Bed and check functions and that up / down arrows are indicating correct.

9.6 Changing the Pillar

Raise the Pillar electrically about 5 cm if possible.
Unplug power.
Empty the Bed and remove side walls and the Baby Tray.
Remove Storage Boxes. Press the plastic frame at the bottom of the Pillar down. Peel away the plastic strips so that you can remove the metal pins that hold accessories to the Pillar. If Pillar could not move then you will have to order new metal pins.
Remove Gas Spring from the Pillar as well as its bracket.
Loosen the bolts that hold the Bed Platform. Don't forget the earth cable.
Loosen the bolts on top of the Pillar to remove the Bed bracket. Observe the earth cable on the underside.
Unplug the height control.
Turn the Pillar/Bed upside down.
Unscrew the earth potential stud connections.
Remove the earth protection cable under the Bed.
Loosen screws under the wheel base and remove the foot pedal.
Unscrew the Pillar. Observe the earth cable
To assemble – perform instructions in reverse order.
Make a full function check and an electrical safety test to ensure that the Bed Platform is properly earthed.

10 Spare parts/Accessories

Part no	Description	Remark
800-0008	Side Wall left/right BB100/BB300	23 cm height.
800-0009	Side Wall front BB100/BB300	23 cm height.
800-0010	Side Wall rear BB100/BB300	23 cm height, Grooves for tubing
800-0040	Side Wall left/right BB400/400F	23 cm height.
800-0043	Side Wall front BB400/400F	23 cm height.
800-0042	Side Wall rear BB400/400F	23 cm height, Grooves for tubing
800-0027	Side Wall Guide Left side	Set of 4
800-0021	Side Wall Guide Right side	Set of 4
800-0023	Side Rail front/rear BB100/BB300	Length xx mm
800-0022	Side Rail sides BB100/BB300	Length
800-0044	Side Rail front/rear BB400/BB400F	Length
800-0045	Side Rail sides BB400/BB400F	Length
800-0011	Corner for Side Rail, for all models	
	Screws for Corner Bracket	Use only these special screws
BB150	Mattress BB100/BB300 68 cm x 46 cm	Plastic covered foam
BB450	Mattress BB400/BB400F 76 cm x 64 cm	Plastic covered foam
800-0004	Baby Tray BB100/BB300	
800-0041	Baby Tray BB400/BB400F	
800-0002	Storage Box	
800-0013	Storage Box holder	Includes set of bolt pin and screws
800-0001	Storage Box lid	
BB171	Bottle holder	Not yet available
800-0065	Bracket for DIN rails (fits the Side Rails)	Not yet available
800-0020	Tent Pole	
800-0063	Bracket/handle for BW3	
800-0064	Bracket/handle for BabyWarmer-50	Not yet available
800-0502	Special power cable for BabyWarmer	Length 80-100cm
800-0003	Wheel top Cover	
BB160	Tent for BB100 / BB300	Please check with your local supplier or on the KANMED homepage www.kanmed.se for colors available
BB460	Tent for BB400/400F	
800-0501	Foot Pedal with cable	
800-0029	Bolt pin for accessories (that are to be fixed on the Pillar)	Dia 7 mm, L 30 mm Screw M5. Including the screws. Set of two
	Label Bed tray	
	Label Foot pedal	

NOTE: Other accessories and spare parts may be available. Please check with your local supplier or on the KANMED webpage www.kanmed.se Please contact your supplier for a price list.

11 Warranty Statement

KANMED warrants the purchaser that the Kanmed BabyBed is free from defects in materials and workmanship for a period of 24 months from the date of delivery. The warranty does not apply to plastic parts, mattresses, cables and tents.
The sole obligation of KANMED with respect to any such defect is limited to the repair with new or re-manufactured parts or, at the discretion of KANMED, replacement of the equipment or refunding of the purchase price.
This warranty shall not apply if the product has been modified, adjusted or repaired other than by KANMED or by organizations authorized by KANMED or modified, adjusted or repaired not in accordance with written instructions provided by KANMED. Neither shall the warranty apply if the equipment has been subject to misuse, negligence or accident.
These warranties are made on the condition that prompt notification of a defect is given to KANMED or its authorized dealers within the warranty period.
KANMED shall have the sole right to determine whether a defect exists.
KANMED shall not in any case be liable for special or consequential damages arising from the breach of warranty, breach of contract, negligence or any other legal theory.

12 EMC Guide-Lines

The BabyBed fulfils the applicable requirements of IEC 60601-1-2:2007 Electromagnetic compatibility (EMC).
The BabyBed shall be used in a hospital environment, but not close to HF surgical equipment or MR cameras.

WARNING: Use of accessories and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
WARNING: Portable RF communications equipment (e.g. mobile phones, radio transmitters, antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the BabyBed, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
NOTE: The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

For further information about EMC compliance with the specified emissions and immunity standard, test levels, etc. please contact KANMED.

13 Disposal

	When the Kanmed BabyBed have reached end of life, it should be recycled in accordance with the EU 2002/96/EC (WEEE) directive if applicable.

KANMED AB
Gårdsfogdevägen 18B
SE-168 67 BROMMA – Stockholm
Sweden

Telephone +46 8 56 48 06 30
Telefax +46 8 56 48 06 39

E-Mail: info@kanmed.se
Home page: www.kanmed.se

Distributed by :